Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any of the original unamended claims presented in this application at a later date in one or more continuing applications.

1 – 7 (canceled)

8. (currently amended) A method for heating an exhaust gas catalyst of an internal combustion engine having, an inlet tract with a throttle valve arranged within the inlet tract, a combustion chamber with gas exchange valves in the form of an inlet and outlet valve, an exhaust line with an exhaust gas catalyst arranged the exhaust line, a blower device for pre-compressing the air supplied to the combustion chamber, a device for setting the valve overlap and valve lift of the gas exchange valves, an injection valve for injecting fuel directly into the combustion chamber, a device that determines the amount of fuel required to be injected for homogenous operation of the internal combustion engine, and after detection of a cold-start of the internal combustion engine, comprising:

switching to a lower valve lift and increasing the induction manifold pressure by completely opening the throttle valve and pre-compression of the air by supercharging, in order to generate a positive pressure drop from the inlet side to the outlet side of the internal combustion engine;

setting the valve overlap of the gas exchange valves in order to deliver at least part of the air supplied by the blower device as flushing air directly from the inlet side to the outlet side of the internal combustion engine in the exhaust line; ~~and~~

injecting fuel ~~directing~~ directly into the combustion chamber ~~so that injection begins~~ and after closure of the outlet valve, the injected fuel mixing with an air mass remaining in a cylinder;

combusting the mixed injected fuel and air mass to produce a gas having a λ_{cyl} less than 1 and exhausting the gas from the combustion chamber into the exhaust line; and

mixing the exhausted gas with flushing air to produce a mixture having a λ_{ex} greater than λ_{cyl} to improve CO and HC concentrations and residual oxygen content for heating the exhaust gas catalyst.

9. (previously presented) The method in accordance with claim 8, wherein the coolant temperature is used as a criterion for a cold-start of the internal combustion engine.

10. (previously presented) The method in accordance with claim 8, wherein the coolant temperature and the shutdown time of the internal combustion engine and/or the ambient temperature are used as a criterion for a cold-start of the internal combustion engine.

11. (previously presented) The method in accordance with claim 8, wherein the values for the valve lift are experimentally determined and entered in a storage device of a control device regulating and controlling the internal combustion engine..

12. (previously presented) The method in accordance with claim 8, characterized in that the values for the valve overlap are entered in a storage device of a control device controlling the internal combustion engine, depending on operating parameters of the internal combustion engine.

13. (previously presented) The method in accordance with claim 12, wherein the aspirated air mass, the speed and the monolith temperature are used as operating parameters for the internal combustion engine.

14. (previously presented) The method in accordance with claim 8, wherein the ignition angle is impeded.

15. (new) The method in accordance with claim 8, wherein the mixture produces an exothermic reaction in the exhaust gas catalyst.

16. (new) The method in accordance with claim 8, wherein the valve overlap is set based on a trapping efficiency and λ_{cyl} that are defined when λ_{ex} is equal to 1.

17. (new) The method in accordance with claim 8, wherein λ_{ex} is equal to 1.

18. (new) A method for heating an exhaust gas catalyst of an internal combustion engine having a blower device for pre-compressing a volume of air supplied to a combustion chamber and having direct fuel injection, comprising:

setting a lower valve lift for a plurality of gas exchange valves during cold start conditions;

opening a throttle valve and pre-compressing an air charge by the blower device to increase an induction manifold pressure to produce a positive pressure drop from an inlet side to an outlet side of the internal combustion engine;

setting a valve overlap of the gas exchange valves to deliver at least part of the air supplied by the blower device as flushing air from the inlet side to the outlet side of the internal combustion engine;

injecting fuel directly into the combustion chamber after closure of the outlet valve such that the flushing air remains fuel free;

combining an exhaust gas exiting the combustion chamber with the flushing air in an exhaust line to produce a mixture of exhaust gas and flushing air; and

monitoring the mixture with a λ probe that provides feedback to a device to control the valve overlap such that the mixture has a desired λ_{ex} equal to 1,

whereby the mixture will cause an exothermic reaction to occur in the exhaust gas catalyst to more rapidly heat the exhaust gas catalyst.

19. (new) The method in accordance with claim 18, wherein the amount of valve overlap and valve lift is set so λ_{ex} is equal to 1.

20. (new) The method in accordance with claim 18, wherein the values for the valve lift are experimentally determined and entered in a storage device of a control device regulating and controlling the internal combustion engine.

21. (new) The method in accordance with claim 18, characterized in that the values for the valve overlap are entered in a storage device of a control device controlling the internal combustion engine, depending on operating parameters of the internal combustion engine.

22. (new) The method in accordance with claim 21, wherein the aspirated air mass, the speed and the monolith temperature are used as operating parameters for the internal combustion engine.

23. (new) A method for heating an exhaust gas catalyst of an internal combustion engine with fuel injection during a cold start, comprising:

starting the internal combustion engine;

opening a throttle valve and pre-compressing an air charge by a supercharging device;

setting a valve overlap of the gas exchange valves and setting a lower valve lift to deliver at least part of the pre-compressed air charge delivered by the supercharging device as flushing air directly from the inlet side to the outlet side of the internal combustion engine and mixing the flushing air with a volume of exhausted gas, the exhausted gas having a λ_{cyl} less than 1, to produce a mixture such that the mixture has a λ_{ex} that approaches 1 in value; and

flowing the mixture to the exhaust gas catalyst to produce an exothermic reaction.